

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17.

Determination that *Sagittaria fasciculata* is an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Sagittaria fasciculata* (bunched arrowhead) to be an Endangered species. This plant occurs in North Carolina and South Carolina. The range of *Sagittaria fasciculata* has been reduced due to past drainage and development of suitable habitats. Only two extant populations now exist, one of which has recently been greatly depleted and is now very vulnerable. Both populations occur on privately owned lands. The determination that *Sagittaria fasciculata* is an Endangered species extends to this plant the protection provided by the Endangered Species Act of 1973, as amended.

DATE: This rulemaking becomes effective on August 31, 1979.

FOR FURTHER INFORMATION CONTACT: Mr. Harold J. O'Connor, Acting Associate Director—Federal Assistance, Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240, 202/343-4646.

SUPPLEMENTARY INFORMATION:**Background**

The Secretary of the Smithsonian Institution, in response to Section 12 of the Endangered Species Act, presented his report on plant species to Congress on January 9, 1975. This report, designated as House Document No. 94-51, contained lists of over 3,100 U.S. vascular plant taxa considered to be endangered, threatened, or extinct. On July 1, 1975, the Director published a notice in the *Federal Register* (40 FR 27823-27924) of his acceptance of the report of the Smithsonian Institution as a petition to list these species under Section 4(c)(2) of the Act, and of his intention thereby to review the status of the plant taxa named within as well as any habitat which might be determined to be critical.

On June 16, 1976, the Service published a proposed rulemaking in the *Federal Register* (41 FR 24523-24572) to determine approximately 1,700 vascular plant species to be Endangered species pursuant to Section 4 of the Act. This list of 1,700 plant taxa was assembled on the basis of comments and data

received by the Smithsonian Institution and the Service in response to House Document No. 94-51 and the above mentioned *Federal Register* publication.

Sagittaria fasciculata was included in both the July 1, 1975, notice of review and the June 16, 1976, proposal. A public hearing on the June 16, 1976 proposal was held on August 4, 1976, in Washington, D.C. In the June 24, 1977, *Federal Register*, the Service published a final rulemaking (42 FR 32373-32381, to be codified at 50 CFR) detailing the regulations to protect Endangered and Threatened plant species. The rules establish prohibitions and a permit procedure to grant exceptions to the prohibitions under certain circumstances.

The Department has determined that this listing does not meet the criteria for significance in the Department Regulations implementing Executive Order 12044 (43 CFR Part 14) or require the preparation of a regulatory analysis.

Summary of Comments and Recommendations

Section 4(b)(1)(C) of the Act requires that a summary of all comments and recommendations received be published in the *Federal Register* prior to adding any species to the List of Endangered and Threatened Wildlife and Plants.

Hundreds of comments on the general proposal of June 16, 1976 were received from individuals, conservation organizations, botanical groups, and business and professional organizations. Few of these comments were specific in nature in that they did not address individual plant species. Most comments addressed the program or the concept of Endangered and Threatened plants and their protection and regulation. These comments are summarized in the April 26, 1978, *Federal Register* publication which also determined 13 plant species to be Endangered or Threatened species (43 FR 17909-17916). The Governors of North Carolina and South Carolina were both notified of the proposed action. The Governors themselves submitted no comments on the proposed action, but conservation agencies of both States did reply. Two comments were received concerning *Sagittaria fasciculata*. One comment was submitted by a professional botanist and the other by the Department of the Army (Fort Jackson, South Carolina). Both comments concerned the distribution of *Sagittaria fasciculata* in South Carolina.

Conclusion

After a thorough review and consideration of all the information available, the Director has determined that *Sagittaria fasciculata* E. O. Beal

(bunched arrowhead) is in danger of becoming extinct throughout all or a significant portion of its range due to one or more of the factors described in Section 4(a) of the Act.

These factors and their application to *Sagittaria fasciculata* are as follows:

(1) *Present or threatened destruction, modification or curtailment of its habitat or range.* Historically *Sagittaria fasciculata* has been collected from four locations—one in Buncombe County, North Carolina; two in Henderson County, North Carolina; and one in Greenville County, South Carolina.

The Buncombe County, North Carolina location was known only from a 1896 herbarium specimen which only gave general locality information. Local botanists have searched suitable habitats in Buncombe County but no recent records of the species in that County have been found. It is speculated that the Buncombe County site was destroyed by the extensive development of the general area since 1896. Several botanists noted a population which once occurred in Henderson County, North Carolina which was also destroyed by drainage of its habitat.

Two extant populations occur today. The extant population in Henderson County, North Carolina has been greatly reduced in size by past industrial development, road construction, and herbicide use. The population at this site occurs in a seepage located near a highway and adjacent to a railroad bank. Grading and filling operations associated with the widening of the adjacent highway, along with resultant changes in the drainage pattern of the area, have decreased the habitat of *Sagittaria fasciculata* at this location. Herbicides sprayed along the railroad also damaged the population. In early 1979 Southern Railroad reworked the section of railroad where the plants occurred, destroying all of the North Carolina population except for a small number near the highway. The remaining population at this location is very small and extremely vulnerable.

The Greenville County, South Carolina population occurs in a power line right of way, along the headwaters of a river. The open nature of this habitat which is maintained by Duke Power Company is probably responsible for the vigorous nature of the *Sagittaria fasciculata* plants present at this location. Maintaining the right of way with methods compatible with the survival of the population will be necessary to protect *Sagittaria fasciculata* at this location.

Both extant populations occur on private land and could be further threatened by future development.

(2) *Overutilization for commercial, sporting, scientific or educational purposes.* Interest or curiosity generated by listing this species could lead to collecting and vandalism. The North Carolina population has been so severely reduced in size already that any collecting could easily eliminate the population.

(3) *Disease or predation* (including grazing). Not applicable to this species.

(4) *The inadequacy of existing regulatory mechanisms.* There currently exist no State or Federal laws protecting this species or its habitat.

(5) *Other natural or man-made factors affecting its continued existence.* The small size and number of the populations cause this species to be in greater danger of extinction due to natural fluctuations in the population. The early successional nature of the species also contributes to the danger of its extinction due to the loss of suitable habitat. As woody vegetation or taller herbaceous plants overtop *Sagittaria fasciculata* plants their continued existence is doubtful. Habitat manipulation through removal of woody vegetation and other plants should be carried out at both extant sites.

Effect of the Rulemaking

Section 7(a) of the Act as amended in 1978 provides:

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act. Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") does not jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of section 7 of the Endangered Species Act Amendments of 1978.

§ 17.12 Endangered and threatened plants.

Provisions for Interagency Cooperation were published on January 4, 1978, in the *Federal Register* (43 FR 870-876) and codified at 50 CFR Part 402. These regulations are intended to assist Federal agencies in complying with Section 7(a) of the Act. This rulemaking requires Federal agencies to satisfy these statutory and regulatory obligations with respect to this species.

Endangered species regulations in Title 50 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions which apply to all Endangered species. The regulations which pertain to Endangered plant species, are found at §§ 17.61-17.63 (42 FR 32378-32381).

Section 9(a)(2) of the Act, as implemented by § 17.61 would apply. With respect to any species of plant listed as endangered, it is, in general, illegal for any person subject to the jurisdiction of the United States to import or export such species; deliver, receive, carry, transport or ship such species in interstate or foreign commerce by any means and in the course of a commercial activity; or sell or offer such species for sale in interstate or foreign commerce. Certain exceptions apply to agents of the Service and State conservation agencies.

Section 10 of the Act and regulations published in the *Federal Register* of June 24, 1977 (42 FR 32373-32381, 50 CFR Part 17), also provide for the issuance of permits under certain circumstances to carry out otherwise prohibited activities involving Endangered plants.

Effect Internationally

In addition to the protection provided by the Act, the Service will review the status of this species to determine whether it should be proposed to the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora for placement upon the appropriate Appendices to that Convention and whether it should be considered under other appropriate international agreements.

National Environmental Policy Act

An environmental assessment has been prepared and is on file in the

Service's Washington Office of Endangered Species. The assessment is the basis for a decision that this determination is not a major Federal action which significantly affects the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969.

Endangered Species Act Amendments of 1978

The Endangered Species Act Amendments of 1978 added the following provision to subsection 4(a)(1) of the Endangered Species Act of 1973:

At the time any such regulation [to determine a species to be an Endangered or Threatened species] is proposed, the Secretary shall by regulation, to the maximum extent prudent, specify any habitat of such species which is then considered to be critical habitat.

Populations of *Sagittaria fasciculata* have already been greatly reduced in size and could be threatened by taking or vandalism, activities not prohibited by the Endangered Species Act of 1973. Publication of critical habitat maps would make this species more vulnerable and therefore it would not be prudent to determine critical habitat at this time.

Sagittaria fasciculata was proposed for listing as an endangered plant on June 16, 1976. Since it has been determined to be imprudent to designate critical habitat for this species at this time and all listing requirements of the Act have been satisfied, the Service now proceeds with this final rulemaking to determine this species to be endangered under the authority contained in the Endangered Species Act of 1973, as amended (16 USC 1531-1543).

The primary author of this rule is Ms. E. La Verne Smith, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240, (703-235-1975).

Regulation Promulgation

Accordingly, § 17.12 of Part 17 of Chapter I of Title 50 of the U.S. Code of Federal Regulations is amended as follows:

1. Section 17.12 is amended by adding, in alphabetical order by family, genus, species, the following plant:

Species		Range		Status	When listed	Special rules
Scientific name	Common name	Known distribution	Portion of range endangered			
Alismataceae—Water plantain family:						
Sagittaria fasciculata	Bunched arrowhead.....	U.S.C. (N.C. and S.C.).....	Entire	E		N/A

Dated: July 19, 1979.

Robert S. Cook,

Deputy Director, Fish and Wildlife Service.

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